

# Nuclear Material Stabilization and Disposition (RL-0011)

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*Completed removal of the 232-Z  
glovebox from the 232-Z facility*



## Overview

This section addresses work in Project Baseline Summary RL-0011, *Nuclear Material Stabilization and Disposition*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of June 2005.

## Notable Accomplishments

### Disposition the Plutonium Finishing Plant (PFP) Facility

**Legacy Holdup:** Completed PFP's legacy holdup removal and disposition on June 30, 2005, fifteen months (457 days) ahead of the TPA milestone date.

Completed the second increment of 19 gloveboxes and hoods decontaminated to low level waste (LLW) criteria June 29, 2005, approximately two months ahead of the August 31, 2005, baseline commitment. This brings to 38 the total number of glovebox/hoods decontaminated to LLW criteria.

**236-Z:** Completed legacy holdup removal activities in Plutonium Reclamation Facility and downgraded the facility to Category III.

**232-Z:** The 232-Z glovebox was removed from the 232-Z facility and packaged into an IP-2 shipping container.

### FY 2005 Funds vs. Spend Forecast (\$M)

	Projected FY 2005 Funding	FY 2005 Fiscal Year Spend Forecast	Variance
Nuclear Materials Stabilization & Disposition	\$ 197.1	\$ 186.2	\$ 10.9

### FY 2005 Schedule/Cost Performance (\$M)

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
Nuclear Materials Stabilization & Disposition	\$143.4	\$129.7	\$131.4	-\$13.6	-9.5%	-\$1.7	-1.3%	\$207.4

Numbers are rounded to the nearest \$0.1M and include the closure services allocation.

## **FY 2005 Schedule/Cost Performance, continued**

**Schedule Performance (-\$13.6/-9.5%):** Primary contributors to the unfavorable schedule performance include:

- 232-Z glovebox Deactivation and Decommissioning (D&D) impacted by higher-than-anticipated volume of loose debris, requirements for process equipment removal, and decontamination of the incinerator glovebox.
- 241-Z pre-existing condition cover block issue and subsequent resolution and recovery actions.
- Design and constructability issues supporting pencil tank removal work in the Plutonium Reclamation Facility (PRF).
- Delays in solid waste disposal activities and apportioned D&D project management due to overall delayed D&D activities.
- Delays in special nuclear material (SNM) de-inventory due to the new Department of Energy direction on path forward yet to be implemented in the baseline.
- Delays in 234-5Z process equipment removal due to clearance issues and follow-on training requirements.

The above negative cost variances are partially offset by:

- Recovery of prior-year legacy hold-up removal and lab support transition activities.

**Cost Performance (-\$1.7M/-1.3%):** Primary contributors to the unfavorable cost variance include:

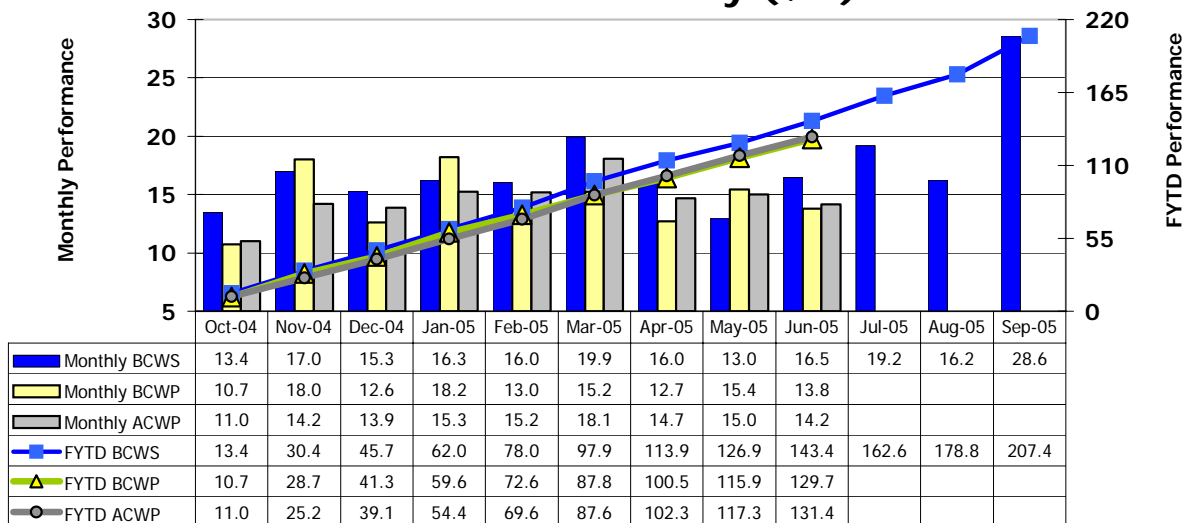
- Increased costs in 232-Z and 241-Z D&D work to support technical issue resolution and subsequent recovery actions.
- Increased costs in pencil tank removal system.
- Fissile material movement outage, and use of overtime to recover schedule in legacy plutonium holdup removal and disposition activities.
- Increased Regulatory Compliance support, and increased labor effort to complete waste storage and other facility modifications supporting D&D.
- Increased costs for occupancy, dosimetry, and severance costs, coupled with work planning initiatives.
- Unplanned costs for the Breathing Air Compressor Project.
- Higher-than-expected water tower demolition costs.
- Fuel handling equipment costs higher than anticipated.

The above negative cost variances are partially offset by:

- Reduced solid waste disposal costs; efficiencies gained by using existing lab and SNM de-inventory teams to accelerate 234-5Z process equipment removal.
- Efficiencies in: (1) 242-Z entry planning; (2) min-safe; and (3) closure services work.
- Lower cost in transition operations support due to redeployment of staff awaiting clearances.

## FY 2005 Schedule/Cost Performance, continued

### Performance Analysis FYTD and Monthly (\$M)



## Milestone Achievement

Number	Milestone Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comments
TRP-05-501 TRP-05-506	Discontinue Waste Discharges from the 241-Z Tanks to Tank Farms	TPA PI	6/30/05	12/8/2004	-----	Complete
TRP-05-503	Complete Deinventory of DOE-STD-3013 Containers & Unirradiated Fuel by Shipment to SRS or Other Approved Location	PI	9/30/06		TBD	To Be Rebaselined
TRP-05-504	Remove and Disposition Pu Holdup in Process Equipment at PFP	PI	9/30/05	6/30/2005	7/31/05	Complete
TRP-05-505	Transition 10 Facilities to Slab-on-Grade	PI	9/30/05	5/22/2005	-----	Complete
TRP-06-500	Decontaminate Glovebox HA-20MB	PI	3/31/06	10/28/2004	-----	Complete
TRP-06-501	Complete 100% Legacy Pu Holdup Removal and Disposition	TPA	9/30/06	6/30/2005	7/31/05	Complete
TRP-06-507 TRP-06-502	Transition 232-Z Bldg Incinerator to Slab-on-Grade	PI TPA	3/31/06 9/30/06		3/31/06	On Schedule Ahead of Schedule
TRP-06-503	Remove Remaining SNM From PFP Such That Protected Area Not Required	PI	9/30/06		TBD	To Be Rebaselined
TRP-06-509	Disposition Miscellaneous PFP Nuclear Materials	PI	9/30/06		9/30/06	On Schedule
TRP-06-510	Transition 241-Z/ZA Facility to Demolition Ready	PI	9/30/06		9/30/06	On Schedule
TRP-06-511	Remove or Decontaminate 236-Z Pencil Tanks	PI	9/30/06		9/30/06	On Schedule
TRP-06-512	Remove or Decontaminate the 236-Z Process Equipment in Rooms 50 & 60	PI	9/30/06		9/30/06	On Schedule
TRP-06-513	Remove or Decontaminate the Remaining 236-Z Process Equipment	PI	9/30/06		9/30/06	On Schedule
TRP-06-514	Remove or Decontaminate 189 Gloveboxes and Hoods in 234-5Z	PI	9/30/06		9/30/06	On Schedule
TRP-06-515	Complete 242-Z Initial Entry & Characterization	PI	9/30/06		9/30/06	On Schedule
TRP-06-516	Cleanout Pu & Am Contaminated Gloveboxes and Tanks in 242-Z	PI	9/30/06		9/30/06	On Schedule
TRP-06-517	Dispose of Approximately 600 Pu Nitrate Containers at PFP	PI	9/30/06		9/30/06	On Schedule